

SEQUENCE LISTING

<110> Eisinger, Dominic P.
Stiles, Lynn
LaMarche, Arthur
Jelinek, Thomas

<120> Recombinant Monoclonal Antibody Specific for
Phosphotyrosine-Containing Proteins

<130> 724650-3

<140>
<141>

<160> 12

<170> PatentIn Ver. 2.1

<210> 1
<211> 1365
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:cDNA for heavy
chain of recombinant antibody

<400> 1
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catggagaga gccttgagtg gattggaggt attaatcctt actatggtgg ttctatcttc 180
agccccgaagt tcaagggcaa ggcccacattg actgttagaca agtcctccag cacagcctac 240
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gtgactctgg gatgcctggt caagggctac ttccctgagt cagtgactgt gacttggAAC 480
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actatgagca gctcagtgac tgtccccctcc agcacctggc caagtcagac cgtcacctgc 600
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tccctgacac ccaaggtcac gtgtgtgggt gtggatgtga gcgaggatga cccagacgtc 840
cagatcagct ggttgtgaa caacgtggaa gtacacacag ctcagacaca aacccataga 900
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atgagtggca aggagttcaa atgcaaggtc aacaacaaag acctcccattc acccatcgag 1020
agaaccatct caaaaattaa agggctagtc agagctccac aagtatacat ctggccgcca 1080
ccagcagagc agttgtccag gaaagatgtc agtctcaatt gcctggcgt gggcttcaac 1140

cctggagaca tcagtgtgga gtggaccgc aatggcata cagaggagaa ctacaaggac 1200
accgcaccag tcctggactc tgacggttct tacttcatat atagcaagct caatatgaaa 1260
acaagcaagt gggagaaaaac agattcccttc tcatgcaacg tgagacacga gggctgaaa 1320
aattactacc tgaagaagac catctcccg tctccggta aatga 1365

<210> 2
<211> 645
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:cDNA for light
chain of recombinant antibody

<400> 2
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tcaggtgcct cccccaaact ctggatttat agcacatcca acttggcttc tggagtcct 180
gctcgcttca gtggcagtgg gtctgggacc tcttactctc tcacaatcag cagtgtggag 240
gctgaagatg ctgccactta ttactgccag cagtagtgc gttaccggac gttcggtgga 300
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cccagagaca tcaatgtcaa gtggaaagatt gatggcagtg aacgacaaaaa tggtgtcctg 480
aacagttgga ctgatcagga cagcaaagac agcacctaca gcatgagcag caccctcaca 540
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<210> 3
<211> 1389
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:cDNA for heavy
chain of recombinant antibody with 3'-histidine
tag sequence

<400> 3
gaggtccagc tgcarcagtc tggacctgaa ctggtaagc ctggggcttc agtgtatgata 60
tcctgcagga cttctgcata cacattcaact gaaaacacccg tgcaactgggt gaagcagagc 120
catggagaga gccttgagtg gattggaggt attaattcctt actatgtgg ttctatcttc 180
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acaacaccccc catcagtcta tccactggcc cctgggtgtg gagataacaac tggttcctcc 420
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tctggatccc tgtccagcag tgtgcacacc ttcccagctc tcctgcagtc tgactctac 540
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agcggtgctc acccagccag cagcaccacg gtggacaaaa aacttgagcc cagcgggccc 660
atttcaacaa tcaacccctg tcctccatgc aaggagtgtc acaaataccc agtcctaac 720
ctcgagggtg gaccatccgt cttcatctc cctccaaata tcaaggatgt actcatgatc 780
tccctgacac ccaaggtcac gtgtgtggtg gtggatgtga gcgaggatga cccagacgtc 840
cagatcagct ggtttgtgaa caacgtgaa gtacacacag ctcagacaca aacccataga 900
gaggattaca acagtactat ccgggtggc agcacccctcc ccatccagca ccaggactgg 960
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aattactacc tgaagaagac catctcccg tctccggta aaggtggcca tcaccaccat 1380
caccattga 1389

<210> 4

<211> 454

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Amino acid sequence for heavy chain of recombinant antibody

<400> 4

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala

1

5

10

15

Ser Val Met Ile Ser Cys Arg Thr Ser Ala Tyr Thr Phe Thr Glu Asn

20

25

30

Thr Val His Trp Val Lys Gln Ser His Gly Glu Ser Leu Glu Trp Ile

35

40

45

Gly Gly Ile Asn Pro Tyr Tyr Gly Ser Ile Phe Ser Pro Lys Phe

50

55

60

Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr

65

70

75

80

Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys

85

90

95

Ala Arg Arg Ala Gly Ala Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr

100

105

110

Thr Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro
115 120 125

Leu Ala Pro Gly Cys Gly Asp Thr Thr Gly Ser Ser Val Thr Leu Gly
130 135 140

Cys Leu Val Lys Gly Tyr Phe Pro Glu Ser Val Thr Val Thr Trp Asn
145 150 155 160

Ser Gly Ser Leu Ser Ser Ser Val His Thr Phe Pro Ala Leu Leu Gln
165 170 175

Ser Gly Leu Tyr Thr Met Ser Ser Ser Val Thr Val Pro Ser Ser Thr
180 185 190

Trp Pro Ser Gln Thr Val Thr Cys Ser Val Ala His Pro Ala Ser Ser
195 200 205

Thr Thr Val Asp Lys Lys Leu Glu Pro Ser Gly Pro Ile Ser Thr Ile
210 215 220

Asn Pro Cys Pro Pro Cys Lys Glu Cys His Lys Cys Pro Ala Pro Asn
225 230 235 240

Leu Glu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Asn Ile Lys Asp
245 250 255

Val Leu Met Ile Ser Leu Thr Pro Lys Val Thr Cys Val Val Val Asp
260 265 270

Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn
275 280 285

Val Glu Val His Thr Ala Gln Thr His Arg Glu Asp Tyr Asn
290 295 300

Ser Thr Ile Arg Val Val Ser Thr Leu Pro Ile Gln His Gln Asp Trp
305 310 315 320

Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Asp Leu Pro
325 330 335

Ser Pro Ile Glu Arg Thr Ile Ser Lys Ile Lys Gly Leu Val Arg Ala
340 345 350

Pro Gln Val Tyr Ile Leu Pro Pro Pro Ala Glu Gln Leu Ser Arg Lys
355 360 365

Asp Val Ser Leu Thr Cys Leu Val Val Gly Phe Asn Pro Gly Asp Ile
370 375 380

Ser Val Glu Trp Thr Ser Asn Gly His Thr Glu Glu Asn Tyr Lys Asp
385 390 395 400

Thr Ala Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Ile Tyr Ser Lys
405 410 415

Leu Asn Met Lys Thr Ser Lys Trp Glu Lys Thr Asp Ser Phe Ser Cys
420 425 430

Asn Val Arg His Glu Gly Leu Lys Asn Tyr Tyr Leu Lys Lys Thr Ile
435 440 445

Ser Arg Ser Pro Gly Lys

450

<210> 5

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Amino acid
sequence for light chain of recombinant antibody

<400> 5

Glu Asn Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser Ser Ser
20 25 30

Tyr Leu His Trp Tyr Arg Gln Lys Ser Gly Ala Ser Pro Lys Leu Trp
35 40 45

Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Val Glu
65 70 75 80

Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Gly Tyr Arg
85 90 95

Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala
100 105 110

Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly
115 120 125

Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Arg Asp Ile
130 135 140

Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu
145 150 155 160

Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser
165 170 175

Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr
180 185 190

Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser
195 200 205

Phe Asn Arg Asn Glu Cys
210

<210> 6

<211> 462

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Amino acid
sequence for heavy chain of recombinant antibody
with C-terminal histidine tag sequence

<400> 6

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
1 5 10 15

Ser Val Met Ile Ser Cys Arg Thr Ser Ala Tyr Thr Phe Thr Glu Asn
20 25 30

Thr Val His Trp Val Lys Gln Ser His Gly Glu Ser Leu Glu Trp Ile
35 40 45

Gly Gly Ile Asn Pro Tyr Tyr Gly Gly Ser Ile Phe Ser Pro Lys Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Arg Ala Gly Ala Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro
115 120 125

Leu Ala Pro Gly Cys Gly Asp Thr Thr Gly Ser Ser Val Thr Leu Gly
130 135 140

Cys Leu Val Lys Gly Tyr Phe Pro Glu Ser Val Thr Val Thr Trp Asn
145 150 155 160

Ser Gly Ser Leu Ser Ser Val His Thr Phe Pro Ala Leu Leu Gln
165 170 175

Ser Gly Leu Tyr Thr Met Ser Ser Val Thr Val Pro Ser Ser Thr
180 185 190

Trp Pro Ser Gln Thr Val Thr Cys Ser Val Ala His Pro Ala Ser Ser
195 200 205

Thr Thr Val Asp Lys Lys Leu Glu Pro Ser Gly Pro Ile Ser Thr Ile
210 215 220

Asn Pro Cys Pro Pro Cys Lys Glu Cys His Lys Cys Pro Ala Pro Asn
225 230 235 240

Leu Glu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Asn Ile Lys Asp
245 250 255

Val Leu Met Ile Ser Leu Thr Pro Lys Val Thr Cys Val Val Val Asp
260 265 270

Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn
275 280 285

Val Glu Val His Thr Ala Gln Thr Gln His Arg Glu Asp Tyr Asn
290 295 300

Ser Thr Ile Arg Val Val Ser Thr Leu Pro Ile Gln His Gln Asp Trp
305 310 315 320

Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Asp Leu Pro
325 330 335

Ser Pro Ile Glu Arg Thr Ile Ser Lys Ile Lys Gly Leu Val Arg Ala
340 345 350

Pro Gln Val Tyr Ile Leu Pro Pro Ala Glu Gln Leu Ser Arg Lys
355 360 365

Asp Val Ser Leu Thr Cys Leu Val Val Gly Phe Asn Pro Gly Asp Ile
370 375 380

Ser Val Glu Trp Thr Ser Asn Gly His Thr Glu Glu Asn Tyr Lys Asp
385 390 395 400

Thr Ala Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Ile Tyr Ser Lys
405 410 415

Leu Asn Met Lys Thr Ser Lys Trp Glu Lys Thr Asp Ser Phe Ser Cys
420 425 430

Asn Val Arg His Glu Gly Leu Lys Asn Tyr Tyr Leu Lys Lys Thr Ile
435 440 445

Ser Arg Ser Pro Gly Lys Gly His His His His His His
450 455 460

<210> 7
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:HC 5' coding
strand primer RAPHC-5

<400> 7
gccaccatgg aatggagttg gatatttctc tttctccgtt caggaactgc aggtgtccac 60
tctgagggtcc agctgcarca 80

<210> 8
<211> 80
<212> DNA
<213> Artificial Sequence

<400> 8

gccaccatgg attttctggc gcagatttc agcttcttgc taatcagtgc ctcagttgca 60
atgtccagag gagaaaatgt 80

<210> 9
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:HC 3'
non-coding strand primer

<400> 9
ctaagctcat ttacccggag accg

24

<210> 10
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:LC 3'
non-coding strand primer

<400> 10
ctcaggacct ttgtctctaa cactc

25

<210> 11
<211> 62
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:HC His 5'
coding strand primer

<400> 11
ctcccggtct ccgggtaaag gtggccatca ccaccatcac cattgagctt agaagggcaa 60
tt 62

<210> 12
<211> 62
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:HC His 5'
non-coding strand primer

<400> 12

aattgccctt ctaagctcaa tggtgatgg ggtgatggcc acctttaccc ggagaccggg 60
ag 62

DNA sequence